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United States
Department of
Agriculture

Forest Service

Washington, DC
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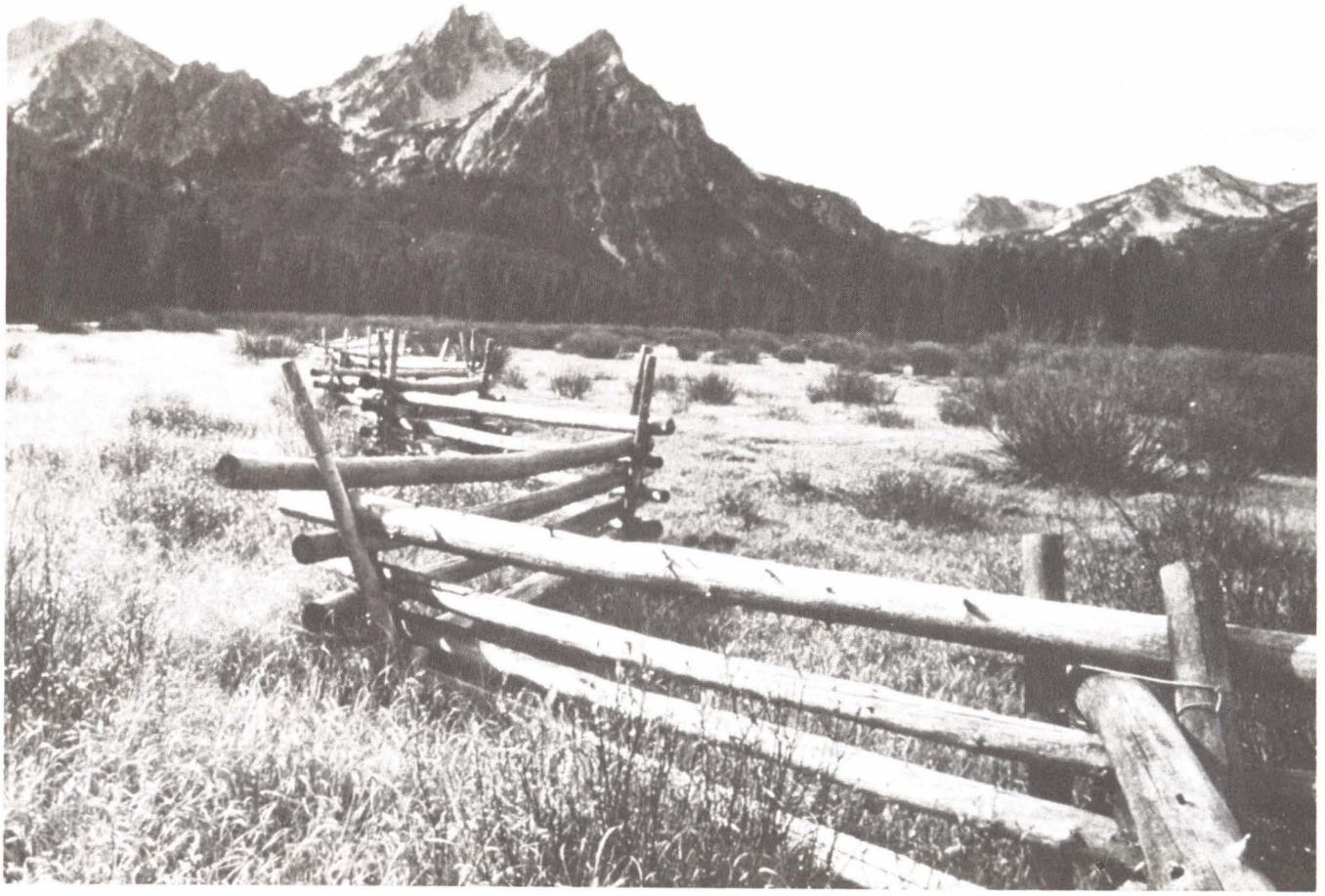
April 1993

Highlights

Report of the Forest Service

Fiscal Year 1992



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Chief's Message

My June 4 announcement of the ecosystem management approach to managing the national forests and grasslands, along with the elimination of clearcutting as a standard timber harvest practice, was a major policy change for the Forest Service. By ecosystem management, we mean that an ecological approach will be used to achieve multiple-use management of the National Forest System. Through this, we will better blend the needs of people and environmental values in ways that sustain diverse, healthy, and productive ecosystems.

This is a tall order, but I am confident the Forest Service, in partnership with the American people, will make good progress in implementing these changes over the next 3-5 years. The end result will be a more environmentally sensitive management of the national forests and grasslands, with visible results on the ground.

We are also significantly reorienting our research program as a result of our ecosystem management policy. Research priorities are being changed to reflect the land managers' strong need for additional scientific information to implement ecosystem management. Perhaps even more important, we are forging a stronger partnership between researchers and land managers. Forest Service scientists are spending more time working directly with land managers to ensure that the best available scientific information is used when land management decisions are made.

In addition to caring for National Forest System lands, the Forest Service continues to provide technical and financial assistance to State and private forest landowners. This contributes to effective management and good stewardship on about 500 million acres of private forest lands for timber, wildlife, recreation, and other purposes. Our urban and community forestry program directly improves the quality of the environment in which most of our citizens live and work.

The Forest Service was very active in international forestry activities this year. As part of the United States delegation to the United Nations Conference on the Environment and Development (UNCED) in Rio de Janeiro, Brazil, the Forest Service participated in major international negotiations about the world's forests. The negotiations led to the Statement of Forest Principles, an international consensus on the conservation and sustainable use of forests around the world, and to Agenda 21, a comprehensive action plan for sustainable development from 1992 into the 21st century. We also expanded our contacts with forest scientists in eastern Europe and Russia, and we strengthened our partnerships for scientific exchange, training, and technical assistance with Mexico, Brazil, and Indonesia.

To help carry out the commitments of UNCED, we established the International Institute of Tropical Forestry in Puerto Rico. The Institute will improve the Forest Service's capabilities to support sustainable resource management in the Tropics.

I am very proud of the role the Forest Service played in getting taxol, a chemical extracted from the bark of the Pacific yew tree, approved by the Food and Drug Administration as an effective cancer-treatment drug. We played an important role during 1992 in harvesting the bark of the Pacific yew tree in partnership with the National Cancer Institute and the Bristol-Myers Squibb Company. An interim guide to the conservation of the Pacific yew was prepared, and the President signed the Pacific Yew Act to ensure efficient use and long-term conservation of this vital resource.

I look forward to 1993 as the Forest Service, working in partnership with the American people, makes progress toward implementing the ecosystem management approach on the national forests and grasslands.

F. Dale Robertson, Chief

Selected FY 1992 Statistics

National Forest System	191 Million Acres
Recreation Use	288 Million Visitor Days
Trail System	120,284 Miles
National Scenic Byways	6,000 Miles
National Wild and Scenic Rivers System	4,316 Miles National Forest System
Lands Burned By Wildfire	530,000 Acres
Insect and Disease Suppression	1.7 Million Acres
Wilderness	34 Million Acres
Watershed Improvements	36,201 Acres
Wildlife and Fish Habitat Improvements	242,761 Acres
Reforestation	492,000 Acres
Livestock Grazing	9.4 Million Animal Unit Months
Grazing Allotments Administered	9,940 Permits
Mineral Cases Processed	26,539
Timber Sold	4.4 Billion Board Feet
Timber Harvested	7.2 Billion Board Feet
Road System	369,000 Miles
Woodland Owners Assisted	190,211
Research Results Published	2,673 Publications
Permanent and Excepted Full-Time Employees	36,137
Human Resource Programs	142,468 Persons Served
Expenditures	$3.87 Billion
Receipts	$1.39 Billion

To comply with the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), the Secretary of Agriculture submits an annual report to Congress. This annual report summarizes the performance of the Forest Service in implementing the 1990 RPA Program ("The Forest Service Program for Forest and Rangeland Resources: A Long-Term Strategic Plan") in response to congressional direction and appropriations for FY 1992. In this report, results of management, fiscal information, and highlights of Forest Service activities during FY 1992 are presented.

MAJOR PROGRAM AREAS

Forest Service activities are delivered through four programs: management of the National Forest System, State and Private Forestry assistance, Research, and International Forestry assistance.

The National Forest System includes all of the national forests and grasslands, and other lands administered by the Forest Service. These lands are managed according to the Multiple-Use Sustained-Yield Act of 1960, which emphasizes the need to manage the full range of forest resources in the interest of the public.

Technical and financial cooperation with and assistance to State and private landowners is an important component of Forest Service activities. Assistance is provided to State foresters and other State officials, other Federal, State and local agencies, American Indian tribes, and private partners and landowners.

Forest Service research programs improve the agency's ability to fulfill its multiple-use objectives and to provide technical assistance to other public and private land managers. Benefits from research extend beyond National Forest System boundaries to many segments of American society and the rest of the world.

The Forest Service shares technical land management knowledge with other countries. In partnerships with other nations, the Forest Service, as an experienced natural resource management agency, helps achieve resource conservation and sustainable development around the world. In the process, much is learned from other countries.

Figure 1 displays selected measures of agency performance for FY 1992, with FY 1991 information also displayed for comparison purposes.

CONTINUED EVOLUTION OF ECOSYSTEM MANAGEMENT AND STEWARDSHIP

As the Forest Service evolves with American society, new opportunities and emphasis areas arise. During the past 3 years, the Forest Service experimented with environmentally sensitive methods of managing the National Forest System through the New Perspectives program. In field demonstration projects, research efforts and university symposia, the Forest Service learned that ecosystem management is an effective way to manage national forests and grasslands for long-term benefit to the public and the environment.

In June 1992, the Chief announced a commitment to taking an ecological approach in the management of the national forests and grasslands. Ecosystem management emphasizes the value of all forest resources and the need to manage lands holistically, rather than for individual resources. This approach provides diverse and productive habitat for wildlife and fisheries, clean water and air, recreation opportunities, forest products, and long-term ecosystem sustainability that benefits both the land and the people living on it. The ecosystem approach is a continuation of the directions set in earlier statements, particularly the 1990 RPA Program.

An agency conservation educator talks about forest ecosystems with elementary school children. Photo by Jill Bauermeister

Figure 1.

MEASURES OF PERFORMANCE

	FY 1992	FY 1991
NATIONAL FOREST SYSTEM		
Acres of land purchased	157,018	67,871
Acres of watershed improvements 1/	36,201	35,091
Acres of wildlife and fish improvements completed 1/	242,761	235,495
Acres of wildlife and fish inventory completed (millions) 1/	13.1	14.7
Acres of timber stand improvement (release/thin/etc.)	354,800	395,800
Acres reforested (plant/seed/site prep.)	492,000	503,200
Additional acres authorized for oil and gas leasing (millions)	4.709	3.213
Animal unit months permitted to graze (millions)	9.359 2/	9.554 3/
Miles of road constructed	1,180	1,315
Miles of road reconstructed	3,259	3,709
Miles of trail maintained 1/	69,832	65,559
Plans processed for mineral operations 1/	3,565	3,434
Recreation facility capacity maintained (million PAOT-days) 1/	135.8	134.9
Timber volume offered (billion board feet) 1/	5.1	6.2
Timber volume harvested (billion board feet)	7.3	8.5
Wildlife and fish structures completed 1/	19,937	20,469
STATE AND PRIVATE FORESTRY		
Acres of lands treated for fuels management 1/ 4/	284,705	325,420
Acres of pest suppression activities completed 1/	1,703,850	1,500,314
Acres under stewardship management 1/	1,729,114	1,353,423
Acres of multiresource management under the Stewardship Incentives Program 1/	109,026	0
RESEARCH		
Number of extramural research grants made with appropriated dollars	1,064	738
Research publications by major subject area:		
Environmental	495	489
Insect and disease	403	337
Fire and atmospheric sciences	201	187
Forest management	650	574
Economics, marketing, and recreation	574	381
Products and engineering	343	288
Miscellaneous	7	148
Total	2,673	2,404
ADMINISTRATION		
Percent of total payments incurring interest penalties	2.1	2.0
Work force profile: 1/		
Men		
African American	690	667
American Indian/Alaskan Native	973	959
Asian/Pacific Islanders	243	231
Hispanic	1,187	1,145
White	18,680	18,720
Women		
African American	797	758
American Indian/Alaskan Native	693	672
Asian/Pacific Islanders	269	254
Hispanic	668	649
White	11,937	11,627
Total, permanent and excepted employees	36,137	35,682

1/ Measure is estimated or qualified.
2/ Calendar year 1991 data; FY 1992 data is presently unavailable.
3/ Calendar year 1990 data; FY 1991 data is presently unavailable.
4/ National Forest System only.

THE RPA STRATEGIC PLAN—FOUR STRATEGIC THEMES

The Forest Service's national strategic plan, the 1990 RPA Program, outlines the agency's long-term direction and provides general policy guidance for 5 years based on a 50-year projection. The next RPA Program will be published in 1995. The 1990 Program defined the major policy roles of the Forest Service and analyzed its relationship with and responses to contemporary issues. Four major themes emerged from these roles and issues. These themes have guided Forest Service actions and policies since 1990 and were instrumental in the evaluation of agency performance in FY 1992. These four themes are:

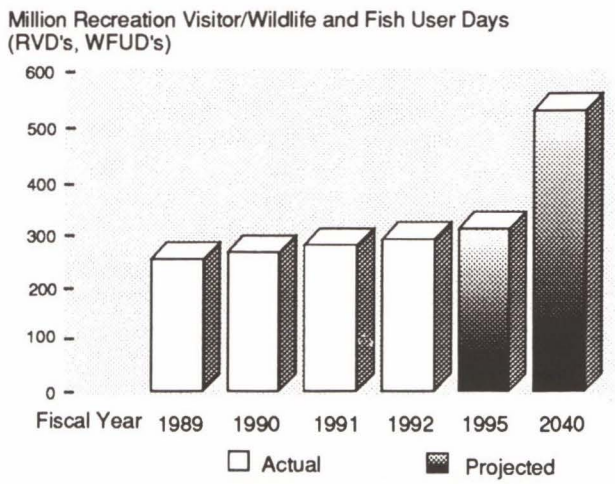
- Recreation, wildlife, and fisheries enhancement
- Environmentally acceptable commodity production
- Improving scientific knowledge about natural resources
- Responding to global resource issues

Recreation, Wildlife, and Fisheries Resource Enhancement

Public use of the national forests for hiking, bird watching, boating, fishing, and other purposes has increased. The value of the forests as habitat for wildlife and plants, including sensitive, threatened, and endangered species, has become more apparent. The ecosystem approach to multiple-use management encourages the protection and integration of resources such as wildlife and fisheries when managing other forest and rangeland values.

As shown in figure 2, recreational use, including wildlife and fish use, of the National Forest System reached almost 288 million visitor days in FY 1992 (a visitor day equals a 12-hour stay by one or more persons), only modestly below the 1990 RPA Program projected 308 million visitor days of use by 1995. The President's recreation initiative, "America's Great Outdoors," focuses on educational and interpretive opportunities, improvement of facilities, and the establishment of special areas for environmental education. Barriers to accessibility were identified for removal so that facilities would be available to all members of the public, regardless of age or physical ability.

Figure 2.
Recreation Use, Including Wildlife and Fish



The Forest Service takes actions to protect and increase populations of endangered species, such as this black-footed ferret.
Photo by Roy Murphy

Further emphasis on good stewardship is the Forest Service's "Leave No Trace" program. This encourages backpackers to leave the forest in the same condition in which they entered it. In FY 1992, this program was expanded to include five agencies within the Department of the Interior to help educate a wide variety of recreational users of forests in wildland use ethics.

Forest Service programs to protect and improve wildlife and fisheries habitat have expanded significantly in recent years, primarily through increased cooperation with public and private partners. As the agency continues to emphasize ecosystem management, important programs which help protect biodiversity are being implemented. One example is the "Partners in Flight" program, which focuses on neotropical migratory bird populations that breed in North America and winter in Central and South America.

The Forest Service has pursued similar efforts to preserve inland and anadromous fisheries. The "Bring Back the Natives" program, a cooperative effort with the Bureau of Land Management and the National Fish and Wildlife Foundation, strives to enhance and protect river habitats and native fish populations.

As part of the agency's ongoing commitment to improving wildlife and fish habitat, the Forest Service built 19,937 structures (e.g., waterholes, nesting boxes and platforms, fish passages, etc.) in FY 1992. Habitat improvements were made on 242,761 acres, and biological inventories were completed on 13.1 million acres. In order to provide quality recreational experiences and minimize adverse environmental impacts, 69,832 miles of trail were maintained in FY 1992.

Watershed improvement projects were completed on 36,201 acres of the National Forest System in FY 1992. Revegetation, soil stabilization, and channel rebuilding techniques contribute to the restoration of the watershed function, helping to ensure improved water quality and quantity for the future.

In FY 1992, almost 900 miles of waterways in the National Forest System were added to the Wild and Scenic Rivers System. These inclusions provide protection for these rivers and long-term wildlife, fish, and recreational benefits. The National Wilderness Preservation System increased substantially in FY 1992 with the addition of an estimated 426,290 acres. The Forest Service now manages 114 scenic byways, with the addition of approximately 1,100 miles to the National Scenic Byways System in FY 1992.

Environmentally Acceptable Commodity Production

Producing forest and rangeland commodities in an environmentally sensitive manner presents a continuing challenge. Forest Service research programs constantly explore new techniques to protect the environment while still fulfilling the agency's mandate of multiple-use management.

Due mainly to management decisions and legal restrictions regarding endangered species such as the northern spotted owl, the timber offered on national forests decreased by 18.3 percent (compared to FY 1991) to an estimated 5.1 billion board feet, as shown in figure 3. This represents less than half of the 10.842 billion board feet projected to be offered for sale for 1995 in the 1990 RPA program. That projection did not include adjustments for the restrictions due to the northern spotted owl, which was listed as a threatened species after the 1990 RPA Program was released.

The acres of clearcut timber harvests also decreased, in part because of the decrease in the timber volume offered but also as a result of a congressional mandate to reduce clearcutting by 25 percent between 1989 and 1995. In FY 1992, ecosystem management also contributed to an accelerated reduction in the use of clearcutting as a standard commercial timber harvesting tool. The 1990 RPA Program projected a 41.1 percent reduction in clearcutting proportional to total harvest between 1989 to 2040, and a gradual reduction in the nearer term. However, since 1990, the actual number of acres clearcut has already dropped below the level proposed for 1995 in the 1990 RPA Program. In FY 1992, clearcut harvests occurred on 162,664 acres of the National Forest System, as compared with 265,000 acres proposed for 1995 in the 1990 RPA Program (see figure 4). Several new considerations, which were not a part of the 1990 RPA Program, have influenced the reductions in clearcutting, including increased litigation and appeals on timber sales with spotted owl habitat and the implementation of the Chief's decision to reduce clearcutting as part of an ecological approach to managing the national forests. In FY 1992, clearcut acreage comprised 21.5 percent of the total acreage harvested.

An example of uneven-aged management, this forest stand on the Lewis and Clark National Forest shows one alternative to clearcut harvest methods being explored through ecosystem management.
Photo by Jill Bauermeister

Figure 3.
Total Timber Offered

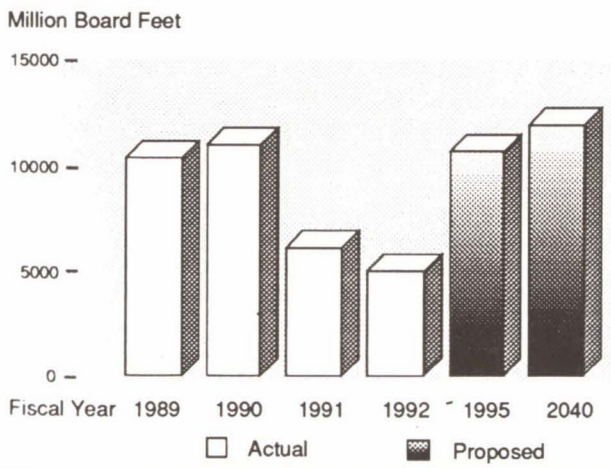
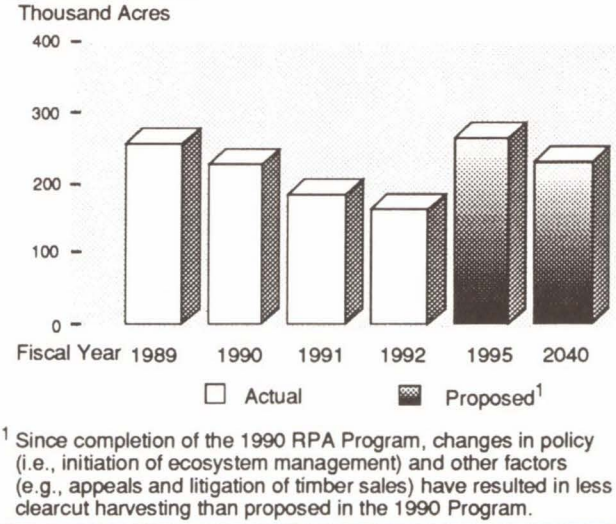


Figure 4.
Clearcut Harvests



[1] Since completion of the 1990 RPA Program, changes in policy (i.e., initiation of ecosystem management) and other factors (e.g., appeals and litigation of timber sales) have resulted in less clearcut harvesting than proposed in the 1990 Program.

An especially important effort in FY 1992 centered around the Pacific yew and its value as a source of taxol, the drug used in the treatment of ovarian cancer. As the medical benefit of this tree became evident, rapid action was taken to assess Pacific yew populations on national forests. A guide for the conservation and management of this tree was published, and the President signed the Pacific Yew Act for the purpose of ensuring efficient use and long-term conservation of this resource.

In addition to forest commodities, range use for livestock production poses important challenges for land stewardship. The Forest Service's "Change on the Range" program emphasizes protection and restoration of rangeland. Its focus on the long-term health of rangelands from the ecosystem perspective has led to significant improvements in range condition, including associated riparian areas.

The National Forest System contains valuable energy and mineral resources which help provide security and self-sufficiency for the United States. Operations to extract energy and mineral resources from National Forest System lands are subject to agency regulation. The Forest Service oversees such activities to minimize adverse effects on the environment and to ensure the implementation of proper reclamation measures.

In FY 1992, the Forest Service completed 59 Final Environmental Impact Statements in accordance with the National Environmental Policy Act. Timber sales accounted for the majority of the activities requiring environmental impact statements. As forest plan implementation continues, improving agency compliance with environmental regulations is a focus of Forest Service training.

Forest specialists review the regeneration of plants and grasses on a site that had been disturbed to lay oil pipelines.
Photo by Jill Bauermeister

Improving Scientific Knowledge About Natural Resources

Research in natural resources improves the Forest Service's ability to effectively manage forests and rangelands. As scientists collect and analyze information and apply it to land management and resource use, the agency can more effectively provide technical assistance to public and private landowners in the United States and foreign countries.

The Forest Service continuously monitors forest health, studying natural and human impacts on forest ecosystems and aiding decisionmakers in the development of management policies. Monitoring also provides the opportunity for early intervention to save forest ecosystems at risk from fire or pest infestation.

Forest Service research explores new ways of protecting forest ecosystems from damaging pests. For example, scientists have developed a spruce beetle trap which uses sex pheromones as a lure; research has also discovered which growing conditions minimize dogwood susceptibility to the disease dogwood anthracnose. With the expansion of international trade, there is increased risk of the disruption of the delicate balance of domestic ecosystems. When the invasion of Asian gypsy moths into the Pacific Northwest was discovered in 1991, the Northeastern Forest Experiment Station rapidly transferred information and technology to that region.

Continually improving scientific knowledge about natural resources and ecosystem processes enhances the ability to benefit from forest resources while mitigating adverse environmental impacts. New knowledge about natural systems will lead to new methods for timber harvesting and other activities that are more environmentally sensitive.

Forest Service research has developed new uses for forest products as well as methods of recycling wood fiber into high-quality goods to ease the strain on the Nation's capacity for waste disposal. Research into forest-based economies aids rural America by identifying potential sources of new jobs based on the sensible and sound use of forest resources. It also facilitates cooperative efforts which can result in improved infrastructure and vital services in rural areas, improving the quality of life in these communities.

In FY 1992, Forest Service research produced 2,673 publications in a variety of subject areas, including insects and diseases, fire and atmospheric sciences, forest management, economics, recreation, products, and engineering. The Forest Service made 1,064 research grants with appropriated funds in FY 1992 in support of research by institutions outside the agency.

Responding to Global Resource Issues

With the increase in international trade and communication, and with advances in scientific knowledge regarding the global ecosystem, international cooperation is an important component of forest and rangeland resource management. From transboundary pollution to tropical deforestation, the economic and ecological impacts of events in one nation can reverberate around the globe.

In FY 1992, the issue of sustainable economic improvement in developing countries remained in the forefront of the international agenda. The year 1992 marked the first full year of the

The Forest Service cooperates in USAID-funded tree planting projects. In this one, a Pakistani nursery owner displays seeds he has recently collected. Photo by Susan Huke

International Forestry Deputy Area in the Forest Service. The Forest Service's land management expertise puts it in a unique position to share technical expertise with land managers in the United States and other nations. Long-term research into natural resources and processes has provided valuable information which contributes to sustainable international development.

In FY 1992, the Forest Service emphasized the agency's commitment to supporting sustainable land management in all parts of the world. As part of the United States delegation to the United Nations Conference on Environment and Development (UNCED), the Forest Service took a leadership role in the development of policy for the conference. The agency participated in the negotiations leading to Agenda 21, an action plan for sustainable development leading into the 21st century, and in the Statement of Forest Principles, an international agreement on the conservation and sustainable use of forests across the globe. FY 1992 marked the decision to create the International Institute of Tropical Forestry in Puerto Rico. In line with agreements reached at UNCED, the institute will elevate the Forest Service profile in the Western Hemisphere and improve agency capabilities to support sustainable natural resource management in the Tropics. Agency employees also worked for international conservation by providing professional expertise and technical assistance to foreign countries.

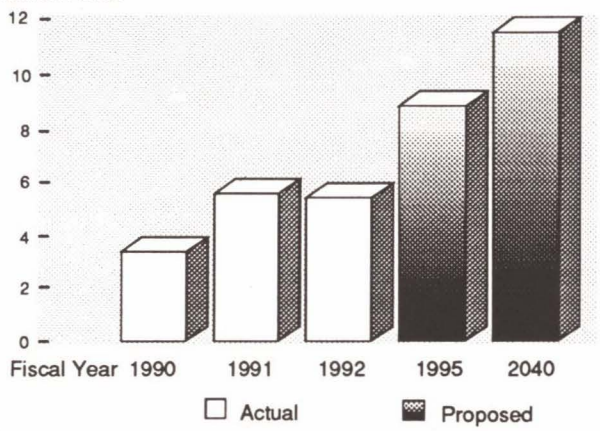
A major component of the Forest Service's international forestry program is the cooperative relationship the agency maintains with other agencies such as the U.S. Agency for International Development (USAID), the Peace Corps, and the USDA Office of International Cooperation and Development (OICD). These partnerships enable the Forest Service to extend its experience and expertise to other countries by providing technical advisers to current projects.

Forest Service involvement in international forestry also takes the form of scientific exchanges, technical transfer, and cooperative research with foreign scientists. Examples of actions taken in FY 1992 include providing technical natural resource management assistance to then-Czechoslovakia, Russia, and Israel, and assistance to several nations in fire management.

Domestic programs, such as tree planting and maintenance through the America the Beautiful Act of 1990, contribute to land stewardship in the United States and may act to conserve energy and decrease the amount of carbon in the atmosphere. Figures 5 and 6 show that both the State and private forestry multiresource plans and total reforestation on nonindustrial private forest (NIPF) lands decreased somewhat since 1991. Multiresource management plans were developed for 5,509,040 acres and State and private forestry assistance contributed to the reforestation of 1,000,000 acres of NIPF lands in FY 1992.

Figure 5.

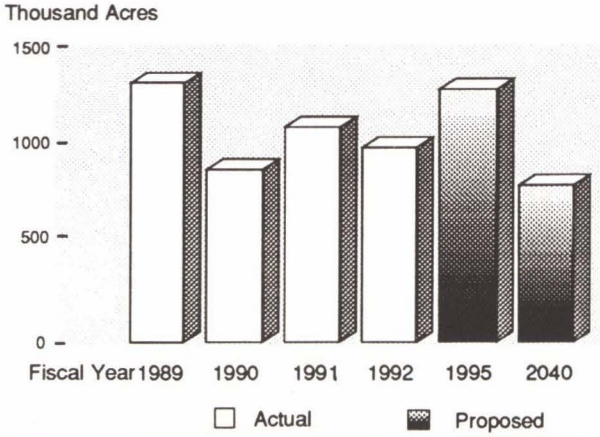
State and Private Forestry Multiresource Plans*



*Includes acres funded by forest resource management and stewardship.

Figure 6.

Total Reforestation on Nonindustrial Private Forest (NIPF) Lands and Projected Accomplishments with S&PF Assistance



EVOLVING ADMINISTRATIVE INITIATIVES

In addition to completing activities centered around specific natural resource program areas, the Forest Service has been working on some special projects which benefit all areas of the agency as well as its clients.

Achieving a Multicultural Organization

To develop a work force that is more representative of the public the agency serves, the Forest Service continues to work toward achieving a multicultural organization. In FY 1992, the agency continued implementation of the strategic plan for work force diversity, working toward a goal that agency employees at all levels reflect the diversity of the American population. Natural resource education for young people, urban forestry projects, and the ongoing relationship with Historically Black Colleges and Universities (HBCU's) and 1890 land-grant institutions also help involve people from ethnically diverse backgrounds in land conservation and provide opportunities for careers in forestry-related fields. In cooperation with Southern University in Baton Rouge, Louisiana, an urban forestry curriculum was created which provides further opportunities for minority students to pursue studies in natural resources. As a participant in the 1890 Institution Capacity Building Grants Program, the Forest Service served as the USDA cooperator for nine research projects.

In response to the spring 1992 riots in Los Angeles, the Forest Service mobilized its expertise and resources to provide services, employment, and hope to residents of the troubled neighborhoods. Hundreds of people worked as summer employees on nearby national forests through a program named Opportunity L.A. Regreen L.A., another Forest Service program, provided jobs and food to hundreds of residents. This matching grant program offered training in agroforestry and urban tree care. Across the country, Forest Service urban forestry programs have brought together tree care groups, local governments, and urban communities to improve neighborhoods through reforestation and tree maintenance. By learning urban forestry skills and taking responsibility for the long-term care and survival of new urban trees, residents develop a sense of pride in their communities.

The Forest Service also reached out to senior citizens through the Senior Community Service Employment program, providing jobs to those meeting eligibility requirements.

Information Management Systems

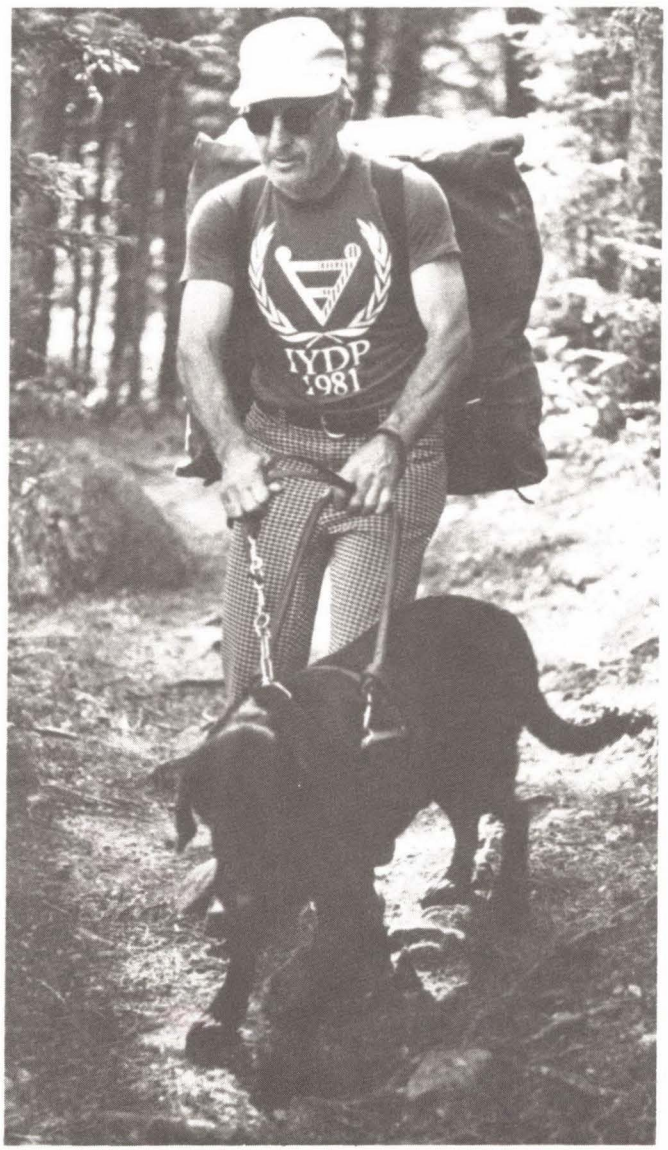
In information management, the Forest Service continues to move towards establishing state-of-the-art systems which integrate communication, program performance, fiscal management, natural resource data and other information. The All Resources Reporting (ARR) effort provides a powerful means of linking programmatic and financial information.

Integrated geographic information systems (GIS) improve the ability of natural resource managers to make timely and informed decisions regarding extremely intricate land management issues. Using GIS, managers can analyze many variations and alternatives. By making such analysis feasible, GIS technology introduces opportunities for negotiation and compromise in the decisionmaking process. While Forest Service units across the Nation currently use this technology, linking such data nationally presents real opportunities for improving land conservation and multiple-use management.

SUMMARY

"Caring for the land and serving people" has been a guiding theme for the Forest Service for over one hundred years. The agency's approach to land stewardship and natural resource conservation has evolved over time. Implementation of the RPA Program strategic plan and continued evolution in Forest Service programs are apparent in the agency's accomplishments for FY 1992.

In FY 1992, this dedication to stewardship and conservation resulted in the adoption of ecosystem management as the guiding management approach for the sustainable use and conservation of forest and rangeland ecosystems. As one of the most experienced natural resource management organizations in the world, the Forest Service has shared professional expertise with land managers across the world, making significant contributions to sustainable international development. In FY 1992, the agency also continued its evolution into a multicultural organization in which the diversity of its employees and activities reflects the identity of its clients, the American people.



Improved access to the National Forest System enables the physically challenged to enjoy recreation areas. FS Photo